CN2036311U《新型磁保持式电磁继电器开关装置》，自第 6 页第 10 行开始翻译至底结束，译文如下：

Figure 1 is the structure front view of this utility model.
Figure 2 is the left view of Figure 1.
Figure 3 is the structural sketch of normal open contact.
Figure 4 is the structural sketch of transmission mechanism.
Figure 5 is the structural sketch of normal close contact.
Figure 6 is the schematic circuit of this utility model.

See Figure 1-3. The specific structure of this utility model is as follows: fix four insulating bases 7 on the base frame 3. Fix four curved busbars 4 side by side on each insulating base 7. One end of the four busbars connects in parallel on one conducting plate 5 to the outside. The other end connects to the static contact 19. The four static contacts in parallel connection constitute the static contact system. The four same static contact systems are installed on base frame 3 symmetrically, on the left and right two sides, one in front and one behind. On the insulating square shaft 6 installed on the side plate 2 of base frame, install the moving contacts 1 in pairs. The moving contacts are fixed on the insulating square shaft through the fixed mount 17. The fixed mount is provided with the compression spring 18 and screw 20. The compression spring acts on the moving contact 1 to enable it to determine its space and contacting pressure with the static contact 19. The screw 20 can adjust the acting force of compression spring 18. The moving contacts in pairs are connected by soft wire 16 to be a conducting channel and they, together with the static contact system, constitute four contact groups, i.e. four groups of normal open contact pairs. In each contact group there is one pair of normal open moving and static contacts doubling as the arcing contacts, whose external are equipped with the arc chute 8 with short bars. Adjust the screw 20 on this moving contact to determine the space (normal open status) and contacting pressure (close status) between the moving contact and the static contact. Compared to other contacts in its group, this arcing contact has narrower normal open space and higher contacting pressure when closing, thus ensuring that the arc contact opens earlier and closes later than other contacts in this group and that the contacting of other moving and static contacts have better synchronism without electric arc. See Figure 5. There is also the normal close contact on the insulating base 7 of this utility model. The static contact 26 is fixed on the insulting base 7 by busbar 4. The moving contact 9 is fixed on the rotary part 23. The rotary part 23 rotates with the shaft 25. There is the compression spring 27 between

the rotary part 23 and the conducting plate 5. The compression spring acts on the rotary part to close that between the moving contact and static contact; fix the driving arm 24 on the insulating square shaft 6 and the driving arm can act on the rotary part to rotate it and open the normal close contact. Its working status is as follows: the four normal open arcing contacts close synchronously and then open, close before opening synchronously, so that high enough arc voltage can be generated to accelerate the demagnetization conversion and the reliability can be enhanced when this utility model breaks. Especially when the silicon controlled excitation system applies the zinc oxide nonlinear resistor to demagnetize, it can reliably separate the frequent impact to the zinc oxide components caused by the peak overvoltage generated when the SCR breaks, which is also beneficial to enhance the working reliability of the excitation system. See Figure 4 for the transmission mechanism. Install the electromagnet 10 on the middle of this utility model. The iron core 11 with push rod 12 passes through the electromagnet 10. On one side of the electromagnet 10 there is the ring shape rare earth iron boron permanent magnet 22 with the radial magnetic field, which is composed of eight sectors. On the push rod 12 there is the hook connecting to the front end of rock arm 15 on the insulating square shaft 6. The snap close 14 can scrag the hook on push rod 12. Near the top of push rod 12 install the release electromagnet 21 which contains the iron core 13. When switching on, forward current is galvanized in the coil of electromagnet 10. The iron core 11 rapidly closes and makes the insulating square shaft 6 rotate to drive the contact to close through the rock arm in linkage with iron core. The normal close contact points in its auxiliary contact cut off the forward current. At this moment, the iron core is firmly attracted to the close position by the radial permanent magnetic filed of the permanent magnet 22, realizing the long close of contact. When the motor fails or needs the normal stop for demagnetization, the relay impulse current reversed flows through the electromagnetic coil of electromagnet 10 and the counter magnetic field is generated. The iron core repulsing the original permanent magnetic field opens immediately and this utility model breaks rapidly; once the counter magnetic field can not be generated timely due to malfunctions, after the very short delay the iron core 13 of another release electromagnet 21 extends and acts on the push rod 12 immediately. The hook of the push rod 12 releases the snap close 14 at the front end of rock arm. This utility model breaks and acquires double protection immediately. For the normal release, the electromagnet 21 does not act.